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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,598	12/27/2001	Arto Leppisaari	810-010779-US(PAR)	8819
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PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			EWART, JAMES D	
			ART UNIT	PAPER NUMBER
			2683	6

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/033,598

Applicant(s)

LEPPISAARI, ARTO

Examiner

James D Ewart

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 9 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

*Specification*

1. The disclosure is objected to because of the following informalities: Column 0063 states "does not be unique" and should be something like "does not have to be unique". Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Rosier (U.S. Patent Publication No. 2002/0080792).

Referring to claim 14, Rosier teaches a mobile station comprising means for combining acknowledgements for at least two downlink messages received from a communication network to which said mobile station is connected into a single uplink message to said communication network (Figures 2-4). Newton's Telecom Dictionary defines a packet as being a message.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ayanoglu et al. (U.S. Patent No. 5,570,367).

Referring to claim 15, Ayanoglu et al. teaches a communication network comprising means for transmitting downlink messages to a mobile station connected to said communication network, and means for requesting an acknowledgement (Column 1, Lines 50-54) of at least two downlink messages transmitted to said mobile station with a single uplink message (Column 1, Lines 61-65).

Referring to claim 17, Ayanoglu et al. teaches a communication system comprising: a communication network with means for transmitting downlink messages to a mobile station connected to said communication network and with means for requesting an acknowledgement (Column 1, Lines 50-54) of at least two downlink messages transmitted to said mobile station with a single uplink message (Column 1, Lines 61-65); and a mobile station with means for combining acknowledgements for at least two downlink messages received from said communication network into a single uplink message to said communication network (Column 1, Lines 61-65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,3,4,7,8,10 and 11 are rejected under 35 USC 103(a) as being unpatentable over Forssell et al. (U.S. Patent No. 6,683,860) in view of Rosier.

Referring to claim 1, Forssell et al. teaches a method for acknowledging reception of messages in a communications system (Figure 4b, 437), which messages are downlink messages transmitted from a communication network to a mobile station connected to said communication network (Figure 4b and Column 3, Lines 35-44), wherein said method comprises: receiving at said mobile station at least two downlink messages from said communication network (Column 5, Lines 8-10 and Column 9, Lines 4-6), of which at least two downlink messages reception has to be acknowledged (Column 8, Lines 58-64 and Figure 4b; 437); and acknowledging reception of said at least two downlink messages in uplink messages transmitted by said mobile station to said communication network (Column 8, Lines 58-64 and Figure 4b; 437), but does not teach using a single message to acknowledge multiple messages. Rosier teach using a single message to acknowledge multiple messages (0036). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. with the teaching of Rosier of using a single message to acknowledge multiple messages to provide an innovative data retransmission approach (0038). Newton's Telecom Dictionary defines a packet as being a message.

Referring to claim 3, Forssell et al. further teaches wherein said at least two downlink messages are control messages transmitted in at least two downlink temporary block flows (TBF) associated to said mobile station (Figure 4; 436). FBI = 1 is a control message.

Referring to claim 4, Forssell et al. further teaches wherein said uplink message is transmitted in an uplink control channel associated to a downlink temporary block flow (TBF), which downlink TBF is associated to said mobile station (Figure 4b; 437 and Column 8, Lines 5-9).

Referring to claim 7, Rosier further teaches wherein said uplink message acknowledging reception of said at least two downlink messages comprises an identification of each of said at least two downlink messages (Figures 2-4 and 0097).

Referring to claim 8, Forssell et al. further teaches wherein said at least two downlink messages are control messages transmitted in at least two downlink temporary block flows (TBF), and wherein said identification comprises at least a temporary block flow identifier (TFI) assigned to each TBF (Column 5, Lines 10-12 and Figure 4b; 437).

Referring to claim 10, Forssell et al. further teaches wherein said uplink message is transmitted using a radio link control/medium access control (RLC/MAC) control block format (Column 3, Line 13).

Referring to claim 11, Forssell et al. further teaches wherein said RLC/MAC control block format provides identification fields (Column 5, Lines 10-12 and Figure 4b; 437), but does not teach wherein at least two of said at least two identification fields identify a different one of said at least two downlink messages that are to be acknowledged by said single uplink message. Rosier teaches wherein at least two of said at least two identification fields identify a different one of said at least two downlink messages that are to be acknowledged by said single uplink message (Figures 2-4). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. with the teaching of Rosier wherein at least two of said at least two identification fields identify a different one of said at least two downlink messages that are to be acknowledged by said single uplink message to provide an innovative data retransmission approach (0038).

5. Claim 2 is rejected under 35 USC 103(a) as being unpatentable over Forssell et al. and Rosier and further in view of Ahlstrand et al. (U.S. Patent Publication No. 2002/0025812).

Referring to claim 2, Forssell et al. and Rosier teach the limitations of claim 2, but do not teach wherein communication network comprises a GSM/EDGE (Global system for mobile communications/enhanced data rates for GSM evolution) radio access network (GERAN) via which said mobile station is connected to said communication network. Ahlstrand et al. teaches wherein communication network comprises a GSM/EDGE (Global system for mobile communications/enhanced data rates for GSM evolution) radio access network (GERAN) via which said mobile station is connected to said communication network (0023). Therefore at the

time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. and Rosier with the teaching of Ahlstrand et al. wherein the communication network comprises a GSM/EDGE (Global system for mobile communications/enhanced data rates for GSM evolution) radio access network (GERAN) via which said mobile station is connected to said communication network to provide a flexible way of managing access request identifiers (0007).

6. Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Forssell et al. and Rosier and further in view of Pecen et al. (U.S. Patent No. 6,529,525).

Referring to claim 5, Forssell et al. further teaches wherein said uplink message is transmitted as a single packet control acknowledgement (PCA) message on a reserved uplink control channel (Figure 4b; 437), but does not teach using a radio block of four consecutive time division multiple access (TDMA) frames of said control channel. Pecen et al. teaches using a radio block of four consecutive time division multiple access (TDMA) frames of said control channel (Column 4, Line 65 to Column 5, Line 2). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. and Rosier with the teaching of Pecen et al. of using a radio block of four consecutive time division multiple access (TDMA) frames of said control channel to be in accord with GSM/EDGE specifications (Column 3, Lines 56-65).



7. Claim 6 is rejected under 35 USC 103(a) as being unpatentable over Forssell et al. and Rosier and further in view of Oksala et al. (U.S. Patent No. 6,694,135).

Referring to claim 6, Forssell et al. and Rosier teach the limitations of claim 6, but do not teach identifying a radio block that is to be employed for acknowledging reception. Oksala et al. teaches identifying a radio block that is to be employed for acknowledging reception (Column 2, Lines 16-22 and Column 4, Lines 19-23). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. and Rosier with the teaching of Oksala et al. of identifying a radio block that is to be employed for acknowledging reception to improve the efficiency of the use of the uplink resources (Column 3, Lines 19-20).

8. Claim 12 is rejected under 35 USC 103(a) as being unpatentable over Forssell et al. and Rosier and further in view of Chang et al. (U.S. Patent Publication No. 2001/0040883).

Referring to claim 12, Forssell et al. and Rosier teach the limitations of claim 12, but do not teach wherein said uplink message is transmitted using an access burst format. Chang et al. teaches wherein said uplink message is transmitted using an access burst format (0191). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Forssell et al. and Rosier with the teaching of Chang et al. to provide dynamic assignment of uplink and downlink channels (0009).

9. Claim 16 is rejected under 35 USC 103(a) as being unpatentable over Rosier and further in view of Lintulampi et al. (U.S. Patent No. 6,747,962).

Referring to claim 16, Rosier teaches the limitations of claim 16, but does not teach comprising at least a GERAN and a 3G core network, said GERAN providing access for mobile stations to said 3G core network. Lintulampi et al. teaches comprising at least a GERAN and a 3G core network, said GERAN providing access for mobile stations to said 3G core network (Column 1, Lines 41 to Column 2, Line 15 and Column 3, Line 20-30). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the art of Rosier with the teaching of Lintulampi et al. wherein GERAN provides access for mobile stations to said 3G core network to to increase the uplink resource allocation for a mobile station (Column 3, Lines 25-30).

***Allowable Subject Matter***

10. Claims 9 and 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

Referring to claim 9, the references cited teach wherein said at least two downlink messages are control messages transmitted in at least two downlink temporary block flows

(TBF) (Figure 4; 436), and wherein said identification comprises a TFI, but does not teach indicating a timeslot number of a predetermined timeslot of each TBF.

Referring to claim 13, the references cited do not teach a method for acknowledging reception of messages in a communications system wherein a single uplink message is transmitted to acknowledge multiple downlink messages *wherein each acknowledgment of reception of up to four downlink messages is included in a different one of said bursts in said four consecutive frames.*

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brooks et al. U.S. Patent No. 6,038,606 discloses method and apparatus for scheduling packet acknowledgements.

Lohtia et al. U.S. Patent Publication No. 2002/0082033 discloses method and apparatus for efficient packet-based communications over a wireless network.

McDonnell U.S. Patent Publication No. 2002/0108082 discloses methods and systems for avoiding unnecessary retransmissions associated with automatic retransmission query schemes in radiocommunication systems.

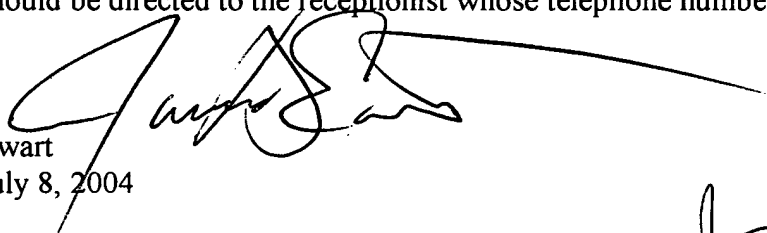
Sabaa et al. U.S. Patent No. 6,389,016 discloses data communication system and method for transporting data.

Schieder et al. U.S. Patent Publication No. 2001/0026546 discloses subscriber terminal network controller and communication system for performing packet data transfer with reduced delay.

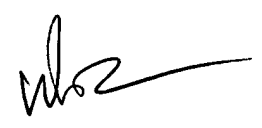
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D Ewart whose telephone number is (703) 305-4826. The examiner can normally be reached on M-F 7am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703)308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.



Ewart  
July 8, 2004



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